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PTO/SB/21 (09-04)

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/726,204
	Filing Date	Dec. 2, 2003
	First Named Inventor	Yamada, et al.
	Art Unit	2833
	Examiner Name	Truc T. Nguyen
	Attorney Docket Number	070793.0156
Total Number of Pages in This Submission		

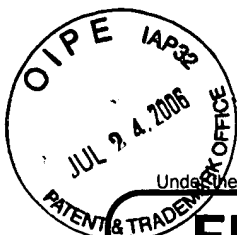
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# FEE TRANSMITTAL for FY 2005

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 500.00)

## Complete if Known

Application Number	10/726,204
Filing Date	Dec. 2, 2003
First Named Inventor	Yamada, et al.
Examiner Name	Truc T. Nguyen
Art Unit	2833
Attorney Docket No.	070793.0156

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

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The Director is authorized to: (check all that apply)

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## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Fee Code	Small Entity Fee Code	Fee Description	Fee Paid
1001	2001	Utility filing fee	
1002	2002	Design filing fee	
1003	2003	Plant filing fee	
1004	2004	Reissue filing fee	
1005	2005	Provisional filing fee	

SUBTOTAL (1) (\$ 0)

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

			Extra Claims		Fee from below	Fee Paid	
Total Claims	<input type="text"/>	-20	=	<input type="text"/>	X	<input type="text"/>	=0
Independent Claims	<input type="text"/>	-3	=	<input type="text"/>	X	<input type="text"/>	=0
Multiple Dependent	<input type="text"/>					<input type="text"/>	=0

Large Entity Fee Code	Small Entity Fee Code	Fee Description
1202	2202	Claims in excess of 20
1201	2201	Independent claims in excess of 3
1203	2203	Multiple dependent claim, if not paid
1204	2204	** Reissue independent claims over original patent
1205	2205	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 0.00)

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee Code	Fee Description	Fee Paid
1051	2051	Surcharge - late filing fee or oath	
1052	2052	Surcharge - late provisional filing fee or cover sheet	
1053	1053	Non-English specification	
1812	1812	For filing a request for ex parte reexamination	
1804	1804	Requesting publication of SIR prior to Examiner action	
1805	1805	Requesting publication of SIR after Examiner action	
1251	2251	Extension for reply within first month	
1252	2252	Extension for reply within second month	
1253	2253	Extension for reply within third month	
1254	2254	Extension for reply within fourth month	
1255	2255	Extension for reply within fifth month	
1401	2401	Notice of Appeal	
1402	2402	Filing a brief in support of an appeal	500
1403	2403	Request for oral hearing	
1451	2451	Petition to institute a public use proceeding	
1452	2452	Petition to revive - unavoidable	
1453	2453	Petition to revive - unintentional	
1501	2501	Utility issue fee (or reissue)	
1502	2502	Design issue fee	
1503	2503	Plant issue fee	
1460	1460	Petitions to the Commissioner	
1807	1807	Processing fee under 37 CFR 1.17(q)	
1806	1806	Submission of Information Disclosure Stmt	
8021	8021	Recording each patent assignment per property (times number of properties)	
1809	2809	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	2810	For each additional invention to be examined (37 CFR 1.129(b))	
1801	2801	Request for Continued Examination (RCE)	
1802	1802	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 500.00)

## SUBMITTED BY

Name (Print/Type) Paul A. Ragusa

Registration No. 38,587  
(Attorney/Agent)

(Complete if applicable)

Telephone 212-408-2671

Signature

Date 07/18/2006

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A36094 - 070793.0156

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**On Appeal to the Board of**  
**Appeals and Interferences**

Appellant(s) : Akio Yamada et al. Examiner : Truc T. Nguyen  
Serial No. : 10/726,204 Group Art Unit: 2833  
Filed : December 2, 2003  
Title : CONNECTOR

**REPLY BRIEF**

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July 18, 2006  
Date of Deposit

Paul Ragusa  
Attorney Name

38,587  
Registration No.

  
Signature

July 18, 2006  
Date of Signature



A36094 - 070793.0156

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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Appellant(s) : Akio Yamada et al. Examiner : Truc T. Nguyen  
Serial No. : 10/726,204 Group Art Unit: 2833  
Filed : December 2, 2003  
Title : CONNECTOR

**REPLY BRIEF**

Commissioner for Patents  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

On February 9, 2006, Appellants submitted, pursuant to 37 C.F.R. § 41.37, an Appeal Brief in support of the appeal of the rejections of pending claims 1-11 and 15. The examiner mailed an Answer on May 19, 2006. Appellants hereby submit, pursuant to 37 C.F.R. § 41.41, a Reply Brief further in support of the appeal of the rejections of pending claims 1-11 and 15.

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**I. STATUS OF CLAIMS**

Claims 1-11 and 15 stand finally rejected and are the subject of this appeal.

Claims 12 and 16 stand objected to, the examiner indicating that these claims would be allowable if rewritten in independent form including the limitation of the claims from which they depend.

Claims 13-14 stand canceled.

## II. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection for review are:

(1) the rejection of claims 1-5 and 15 under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Pat. No. 5,350,310 to Roberts (“Roberts”)<sup>1</sup> in view of U.S. Pat. No. 5,928,029 to Lam (“Lam”); and

(2) the rejection of claims 6-11 under § 103(a) as allegedly obvious over Roberts in view of Lam and further in view of U.S. Pat. No. 5,163,847 to Regnier (“Regnier”).

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<sup>1</sup> Appellants noted in footnote 1 on page 8 of the Appeal Brief that the Examiner had, in the April 7, 2005 and October 6, 2004 Office Actions and the July 13, 2005 Advisory Action, cited to a “Roberto” reference that did not correspond to any of the patents that the Examiner had cited as prior art. Appellants assumed that the examiner intended to cite to “Roberts” (US Pat. No. 5,350,319) based on the prior art patent numbers cited by the examiner. Although the examiner has cited to “Roberts” (US Pat. No. 5,350,319) in sections (8) - (10) of the Examiner’s Answer mailed on May 19, 2006, the examiner has, in section (9), again cited to “Roberto,” a reference not listed in section (8) Evidence Relied Upon. Applicants have assumed, once again, that when the examiner cited to “Roberto” in the Examiner’s Answer that the intent was to cite instead to “Roberts” (US Pat. No. 5,350,319).

### III. ARGUMENT

#### A. Introduction

In addition to the arguments presented in Appellants' Appeal Brief, Appellants present two arguments below in further support of the patentability of claims 1-11 and 15. For at least these additional reasons, the examiner's rejections of claims 1-11 and 15 are incorrect and should be reversed.

#### B. Rejections of claims 1-5 and 15 under 35 U.S.C. § 103 based upon combined teachings of Roberts and Lam

##### i. *Argument for Independent Claim 2*

The examiner alleges that "Roberto substantially disclosed the claimed invention except the pushing member being a U-shaped member formed of a unitary part. Lam teach a U-shaped unitary member (12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the pushing member of Roberto by a U-shaped unitary pushing member, as taught by Lam for reducing assembling time." May 19, 2006, Examiner's Answer at page 4. However, this combination of Roberts and Lam is improper.

Lam is directed to an electrical connector comprised of a pin portion and two contact arms in a U-shaped configuration that is "designed to permit repetitive interconnection between a flat cable" and the electrical connector. *See* Lam, Col. 3, ll. 49-64. Indeed, Lam does not disclose or suggest inserting more than one flat cable into the electrical connector.

Furthermore, the connector in Lam is designed specifically to accommodate only one flat cable. In particular, after inserting the single flat cable into the connector, a "slide member 13 is



then inserted between the flat flexible cable 26 and the lower row of contact arms.” *See* Lam, Col. 5, ll. 42-44. As a result, the flat cable is then maintained “against the upper row of contact arms of the terminals” and is solely in electrical contact with the upper row of contact arms. *See* Lam, Col. 5, ll. 31-54; *see also* Lam, Col. 4, ll. 3-7. While the “slider urges the exposed conductive portions of the flat cable into electrical engagement” with the upper row of contact arms, the lower row of contact arms “maintains elastic urging of the slider and thereby the flat cable into engagement with the [upper row of contact arms].” *See* Lam, Col. 4, ll. 3-7. Thus, the flat cable is electrically engaged with merely the upper row of contact arms and not the lower row of contact arms.

Because the flat cable disclosed in Lam has “exposed conductive portions along a *single* surface” (emphasis added) (*i.e.*, on the single surface facing the upper row of contact arms), *see* Lam, Col. 3, ll. 64-66, if an additional flat cable were to be inserted into the connector, the flat cable sandwiched between the other flat cable and the slide member would not be electrically engaged with the upper row of contact arms. Thus, this arrangement of having a flat cable with conductive portions along a single surface that is electrically engaged with only one row of contact arms renders it impossible to insert any additional flat cables into the connector such that they electrically engage with the contact arms without having to modify the connector or the flat cables.

Consequently, because the connector in Lam is designed to only allow *one* flat cable to be inserted into it, one of ordinary skill in the art would not attempt to use Lam’s U-shaped pusher member with Roberts, which requires that *two* flexible circuits (12) be inserted into the aperture (18) according to the examiner. *See* May 19, 2006, Examiner’s Answer at page 6.

Consequently, the combination of Lam and Roberts is improper. For at least this reason, along with the arguments presented in Appellants' Appeal Brief, the examiner should withdraw the rejection under § 103(a).

*ii. Argument for Independent Claim 1*

As stated in Appellants' Appeal Brief, claim 1 recites all of the limitations of claim 2 except that claim 1 requires "at least three flexible printed circuit boards" be inserted into a "fitting aperture" whereas claim 2 requires insertion of only "two flexible printed circuit boards." Thus, Appellants reassert the patentability argument presented above, as well as those presented in Appellants' Appeal Brief, in connection with claim 2 and submit that claim 1 is patentable for the same reasons as claim 2. Accordingly, claim 1 cannot be rendered obvious by recourse to the examiner's argument that "mere duplication of the essential working parts of a device involves only routine skill in the art." May 19, 2006, Examiner's Answer at page 4.

*iii. Argument for Dependent Claims 3-5 and 15*

Appellants submit that, because claims 4 and 15 depend, either directly or indirectly, from independent claim 2, and thereby contain all of its limitations, claims 4 and 15 cannot be rendered obvious by the combination of Roberts and Lam. Appellants further respectfully submit that, because claim 1 is not rendered obvious by Roberts and Lam, claim 3, which contains all of the limitations of claim 1, cannot be rendered obvious by reliance on these references. Finally, Appellants submit that, because claim 5 multiply depends from either claim

3 or 4, which depend from claims 1 and 2, respectively, and so contain all of their limitations, claim 5 cannot be rendered obvious by the Roberts and Lam combination.<sup>2</sup>

**C. Rejections of claims 6-11 under 35 U.S.C. § 103 based upon combined teachings of Roberts, Lam, and Regnier**

*i. Argument for Dependent Claims 6-11*

Claims 6-11 depend directly from claim 5 and thereby contain all of its limitations. As set forth above, claim 5 is not rendered obvious by Roberts and Lam. Furthermore, Regnier has been cited only for disclosing “a circuit (10) having slit (16),” May 19, 2006, Examiner’s Answer at page 4, and has not been cited against claim 5 for the limitations not taught by Roberts and Lam. Therefore, Appellants respectfully submit that claims 6-11 that depend from claim 5 cannot be rendered obvious by the examiner’s reliance on Regnier’s disclosure for “a circuit (1) having a slit (16).”

Even assuming, *arguendo*, that claim 5, the claim from which claims 6-11 depend, is not patentable over the prior art, neither Roberts, Lam, nor Regnier discloses or suggests that there be “slits between adjacent contact portions” as required by claim 6. Because claims 7-11 recite limitations similar to this limitation of claim 6 (claim 7: “slits between the contact portions”; claim 8: “slits between each pair of two adjacent contact portions”; claim 9: “slits between pairs of each two adjacent contact portions”; and claims 10 and 11: “slits between the adjacent contact portions arbitrarily selected to provide a compliance to said adjacent contact portions”), the discussion below should be applied to those claims as well.

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<sup>2</sup> It should be noted that the examiner only rejected those parts of multiply dependent claim 5 that depend from claim 3, April 7, 2005, Office Action at page 3, and did not reject those parts of multiply dependent claim 5 that depend from claim 4.

The examiner has failed to establish under § 103(a) a *prima facie* case of obviousness for claim 6.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). ‘All words in a claim must be considered in judging the patentability of that claim against the prior art.’ *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Manual of Patent Examining Procedure, § 2143.03. Regnier has been cited only for disclosing “a circuit (10) having slit (16),” May 19, 2006, Examiner’s Answer at page 4. In addition, neither Roberts nor Lam has been cited as even disclosing a “slit.” Because the examiner has failed to cite any references that disclose or suggest that there be “slits between adjacent contact portions” as required by claim 6, each and every element of claim 6 has not been “taught or suggested by the prior art.” Thus, the rejection of claim 6, and similarly the rejections of claims 7-11, under § 103(a) are improper.

Further, even if the examiner’s citation to Regnier (“a circuit (10) having slit (16)”) can somehow be construed as disclosing or suggesting the element “slits between adjacent contact portions” as required by claim 6, which on its face it does not, Regnier does not disclose or suggest the aforementioned limitation. First of all, only a single notch (16) is shown in Fig. 1 (the only figure showing the notch (16)), resulting in there being many adjacent conductive pads (22a) lacking a slit between them. *See* Regnier, Fig. 1. Further, the invention is directed to “a card edge connector assembly . . . with a locating notch 16. . . .” Regnier, Col. 3, ll. 33-38. Thus, Regnier does not disclose or suggest having more than one notch nor does it disclose or suggest having those notches located “between adjacent contact portions” as required by claim 6.

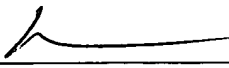
Thus, the rejection of claim 6, and similarly the rejections of claims 7-11, under § 103(a) are improper.

Accordingly, the obviousness rejection of claims 6-11 should be reversed.

For the foregoing reasons, the examiner's rejection of claims 1-11 and 15 should be reversed.

Respectfully submitted,

Dated: July 18, 2006

By:   
Paul Ragusa  
Patent Office Reg. No. 38,587

*Attorney for Appellants*  
Telephone: (212) 408-2588

Baker Botts L.L.P.  
30 Rockefeller Plaza  
New York, NY 10112